



## EGYPT INTEGRATED IRRIGATION IMPROVEMENT AND MANAGEMENT PROJECT (IIIMP)



<b>Client</b>	Ministry of Water Resources and Irrigation
<b>Financing</b>	KfW Development Bank
<b>Duration of Services</b>	09/2008 – 01/2015
<b>Cost of Implementation</b>	6 735 855 Euro
<b>Consulting Fee</b>	1 340 000 Euro

### Scope of Services

- Integrated design of irrigation and drainage system improvements;
- Integrated improvements of mesqas and strategies to improve on-farm water management and agriculture;
- Expanded roles for WUAs, BCWUAs and IWMDs, including participation in design and construction;
- Design and management of irrigation and drainage systems to enable continuous flow and equity of distribution along branch canals;
- Provision for adequate maintenance of channels, canals and structures;
- Provision for effective cost control, procurement and pre-qualification procedures for project implementation.

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## Brief Project Description

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The Integrated Irrigation Improvement and Management Project (IIIMP) is a program to modernize Egypt's vital irrigation and drainage systems and their supporting institutions.

The Project will be implemented in the Mahmoudia and Mit Yazid irrigation and drainage systems, which constitute 550,000 feddan (230,000 hectares) of gross command area that is equivalent to approximately ten percent of the area under irrigation and drainage in the Nile Delta.

The IIIMP makes appropriate and integrated use of the compelling innovations and lessons learned in the irrigation and drainage sector in Egypt over the last two decades and more.

The Project will be implemented in three parts.

Part A is the provision of technical and administrative assistance to the Project Management Unit (PMU) in MWRI. Guidance and support to the Regional Coordination Units (RCU) and Regional Implementation Teams (RIT) is provided. PMU is assisted to prepare documents for release of donor funds, initiate and coordinate Project monitoring, detect problems in implementation and make corrections as needed, and prepare and submit reports as required. Main outputs of Part A will be: timely and well-coordinated implementation of IIIMP, timely release of donor funds, results of regular and comprehensive monitoring of Project implementation reported and discussed to prompt timely adjustments in implementation as needed, and timely, comprehensive yet concise reporting. Under Part B hydraulic and physical deficiencies in the main and sub-main canals and structures in the irrigation and drainage systems of the Project area are identified and alternative structural solutions are analyzed.

A key challenge is to increase the volume and efficiency of water deliveries through the branch canal and mesqa systems and enable replacement of rotational flows with continuous flow regimes. Results of previous studies and investigations are reviewed, compared and alternative solutions are presented. Following approval of the optimum solution, detailed designs and appropriate tender documents are prepared to enable timely implementation of construction works. Design optimisation methods to be applied result in designs for the most efficient, effective, controllable and sustainable canals and structures possible. At all stages in the work, stakeholders will be consulted. Key outputs will include appropriate designs for rehabilitation and upgrading, agreements about designs with farmers and other stakeholders (through BCWUAs) and tender documents for implementation. Part B will be completed before the end of the second year of the Project.



Under Part C the Consultants design and implement command area irrigation and drainage improvement works for application of continuous flow irrigation techniques. This includes works at the branch canal and mesqa levels, to the marwa offtakes. Designs will be based on improvement works and lessons learned at pilot level on other projects. Farmer participation in construction will be ensured and the process, with the Irrigation Department, of preparing O&M plans and handover agreements at the BCWUA and WUA levels will be supported. Under Part C the MWRI will be assisted in implementing construction of the main and sub-main canal improvement works designs prepared under Part B. Key outputs of Part C will include timely completion of construction of canals and structures, with agreement and support of farmers and other stakeholders. Additional outputs will include installation of pumped and piped water delivery structures in mesqas, adoption of continuous flow water delivery, trial operation and approval of rehabilitation improvements by the Irrigation Department and BCWUAs, preparation of appropriate O&M plans by WUAs and BCWUAs, adoption of improved maintenance standards and preparation and approval of handover agreements between the Irrigation Department and BCWUAs and WUAs.